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## **Classroom interaction and the development of empowerment.**

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### **Abstract**

What is the practical pedagogic value of the zone of proximal development? How might we draw from the writings of Vygotsky and Leont'ev with regard to understanding the process of children and young people's development as socialized intellectual beings? This article applies cultural-historical theory to classroom activity in order to reveal the potential for dynamic change in subjectivity, agency, cooperation and collaboration. After a detailed theoretical contextualization which links primary sources and the cultural-historical tradition to learning and development through classroom activity, an incident in a lesson is discussed and situated in its wider narrative of practical experimentation, diagnosis and implementation.

### **Introduction**

[T]he study of rudimentary functions must be the point of departure for evolving a historical perspective in psychological experiments. It is here that the past and the present are fused and the present is seen in the light of history. Here we find ourselves simultaneously on two planes: that which is and that which was. (Vygotsky, 1978, 64)

The purpose of this article is to build up the theoretical resources we will need to be able to deconstruct an incident in a secondary school classroom and some of the immediate history of activity that leads up to it. I will draw on understandings from cultural-historical theory with particular attention to the foundational work of L. S. Vygotsky and A. N. Leontiev. The importance of disassembling practice with the tool of theory is to explain and demonstrate how some concepts that are frequently invoked in cultural-historical activity theory (CHAT) may be understood in practical terms. I will also introduce terms in order to address some complexities of classroom activity as teaching and learning.

Throughout this article I will draw on my experience as a former secondary school teacher,

who has worked for twenty-five years as a teacher educator, university academic and researcher of classroom interaction and culture. I qualified as a teacher of English in 1981 and have worked in classrooms ever since. I understand what it means and what it requires to work in challenging circumstances, and I have helped many teachers to work successfully in such situations. This article is the product of that experience.

### **From tool to process: significance and limitation of the zone and proximal development**

The zone of proximal development furnishes psychologists and educators with a tool through which the internal course of development can be understood. (Vygotsky, 1978, 87)

At a later point in this article I will to discuss the relationship between learning and development taking place in a conversation excerpted from an audio recording of one of the secondary school lessons I have been involved in recently. This academic year I am spending one day every week working alongside teachers in a local secondary school: my article draws directly on that fieldwork. However, in order to explore the significance of this small piece of classroom life in terms of its theoretical relevance I will first make an appraisal of Vygotsky's zone of proximal development (ZPD). So that the writing that has influenced my thinking is accessible, I will draw extensively from a range of authors' texts by use of direct quotation rather than simply cite publications.

The ZPD is not straightforward to understand, so I will attempt to unravel some of its complexity. My purpose is to reach a depth of understanding that we might then apply to the situation I have transcribed. We need to avoid if possible the trap of research that purports to lead pedagogy by appropriating a powerful theoretical construct and attributing to it a property of learning as if by magic—that is, without being able to explain its educative process:

Theoretical knowledge of how children develop continues to grow but just how to relate this knowledge to the practical contexts in which adults intentionally and systematically intervene to foster this development, in a word, to educate, remains almost as mysterious as when such efforts first began. (Olson & Bruner, 1996, 9)

In 'Interaction between Learning and Development', Vygotsky famously introduces the concept of the zone of proximal development (ZPD) in contrast to the actual developmental

level that 'characterizes mental development retrospectively, while the zone of proximal development characterizes mental development prospectively' (1978, 86-87). In its longer version, this quotation finds its way into many textbook discussions of pedagogy and teacher education. Removed from Vygotsky's wider argument, the ZPD itself becomes definitive and yet elliptical: learning and development seem to become abstract creations of the ZPD.

There are many difficulties with over-simplified, generalized, abstracted and idealized versions of the ZPD. Daniels offers a valuable overview of the scope of definition of the ZPD by scholars working in the cultural-historical tradition, particularly in relation to its purpose with respect to social development:

It remains the case that most of Vygotsky's writing tends to focus on the more immediate interactional/interpersonal antecedents of independent or seemingly independent functioning. The first important implication of this for pedagogy is that teaching and assessment should be focused on the potential of the learner, rather than on a demonstrated level of achievement or understanding. The second is that teaching, or instruction, should create the possibilities for development, through the kind of active participation that characterises collaboration, that it should be socially negotiated and that it should entail transfer of control to the learner. (Daniels, 2001, 61)

In order to specify and focus the application of the ZPD some researchers have argued for other zones and terminology (Valsiner, 1997; Mercer, 2001). Hedegaard, in one of the earliest and best reviews of the ZPD, proposes the practice of a 'teaching experiment' (1990, 183). Chaiklin calls the generalized notion of the ZPD an 'ideal type' and starts his deconstruction of these difficulties with a review of the 'common interpretation' as a series of three assumptions:

*generality assumption*<sup>1</sup> (i.e., applicable to learning all kinds of subject matter), *assistance assumption* (learning is dependent on interventions by a more competent other), and *potential assumption* (property of the learner that permits the best and easiest learning). (Chaiklin, 2003, 41)

Each assumption is a misappropriation of Vygotsky's argument and purpose, as Chaiklin goes on to demonstrate. He concludes that:

It seems more appropriate to use the term *zone of proximal development* to refer to the phenomenon that Vygotsky was writing about and find other terms (e.g., *assisted instruction*, *scaffolding*) to refer to practices such as teaching a specific subject matter concept, skill, and so forth. (Chaiklin, 2003, 59)

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<sup>1</sup> Throughout this article words quoted in italics or underlined have been copied from the original source.

The 'phenomenon Vygotsky was writing about' is the socio-historical construction of psychological development of the child. In the phrase "zone of proximal development", "Development" is the subject noun and the object of the activity that the ZPD describes, not instruction or learning.

Cole (1985) places the ZPD in terms of experimental research activity:

When Vygotsky and his students observed the actual processes by which children came to adopt the role of adults in culturally organized activities, they emphasized [...] the interactional nature of the changes we call development. They found it useful to characterize the behavioral changes they observed in terms of shifts in control or responsibility. In 1934 (translated in 1978) Vygotsky coined the term "zone of proximal development" to describe this shifting control within activities. He first applied the idea in the context of instruction and testing. (Cole, 1985, 155)

The ZPD in this context of practice is for diagnostic purposes—Vygotsky is trying to stimulate and reveal evidence of psychological development of consciousness through learning, not as an ideal abstract but as habits formed from object-driven practical activity:

Learning is more than the acquisition of the ability to think; it is the acquisition of many specialized abilities for thinking about a variety of things. Learning does not alter our overall ability to focus attention but rather develops various abilities to focus attention on a variety of things. According to this view, special training affects overall development only when its elements, material, and processes are similar across specific domains; habit governs us. This leads to the conclusion that because each activity depends on the material with which it operates, the development of consciousness is the development of a set of particular, independent capabilities or of a set of particular habits. (Vygotsky, 1978, 83)

When we work back through the available literature to discover original conceptions for the ZPD then certain qualities emerge that lead us to purposeful and practice-based understandings of its role and potential in explaining learning and development. It is Cole (1985, 152) who argues the ZPD in terms of activity: 'Leont'ev's concept of activity provides the basic unit of analysis that Vygotsky and his colleagues had been using in a partially articulated way in their research'. So, in Cole's reasoning, the ZPD has the potential to move beyond its experimental stimulative capacity into a more generalizable and activity-based situation:

I would like to treat the idea of a zone of proximal development in terms of its general conception as the structure of joint activity in any context where there are participants who exercise differential responsibility by virtue of differential expertise. (Cole, 1985, 155)

What is important here is that Cole is referring to the ZPD's structuring capacity in terms of activity—how the ZPD is a 'structure of joint activity'. This is a very different idea than the suggestion that all joint activity denotes a ZPD or that all joint activity necessarily brings about psychological development or constitutes learning. For Cole, the deciding factor is the predicate of the above statement—the 'context where there are participants who exercise differential responsibility by virtue of differential expertise'.

In 'Interaction between Learning and Development' (1978), Vygotsky's objective is not the ZPD *per se*, but the scientific psychologically-driven explanation of children's learning processes in terms of social and cultural development over time. What Vygotsky builds from his critique of different conceptions of learning and development and from insights gained from both epistemological review and empirical research, including those experiments and observations carried out by his own research group, is a body of evidence that can:

illustrate a general developmental law for the higher mental functions that we feel can be applied in its entirety to children's learning processes. We propose that an essential feature of learning is that it creates the zone of proximal development; that is, learning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in cooperation with his peers. Once these processes are internalized, they become part of the child's independent developmental achievement.

From this point of view, learning is not development; however, properly organized learning results in mental development and sets in motion a variety of developmental processes that would be impossible apart from learning. Thus, learning is a necessary and universal aspect of the process of developing culturally organized, specifically human, psychological functions.  
(Vygotsky, 1978, 90)

In this formulation, therefore, we should attend to what is distinctive about 'properly organized learning' and the significance of 'developmental processes' that are awakened in the instance of interaction with 'people in his environment and in cooperation with his peers'. There is nothing in Vygotsky's formulation here that suggests that internalization is immediate, or that development is mobilized instantaneously.

In fact, when we detach a child's development from learning as an immediately internalized outcome, as if it were a reaction to a stimulus, then we require our perspective to recognise and realise development long-term through that very process Vygotsky calls mediation. By

long term I do not mean simply a person's chronological development over time but also our historical development within and across events. We engage in all sorts of cooperative interactions, object-focused and objectifying events in (and of course beyond) a school lesson in a day. Equally and dialectically, such externalized events co-construct us and become subject-focused and internalizing events. This is the culture- and person-making power and potential of mediation and its means:

human action typically employs 'mediational means' such as tools and language, and [...] these mediational means shape the action in essential ways. (Wertsch, 1991, 12)

These powerful and constitutive acts and events for self and society propose how learning is always enacted by and within a process of 'transition to higher mental functions by way of their mediation and construction of a sign operation' (Vygotsky, 1999, 46). Furthermore, it is the activity of engaging in and with mediation and its means that determines agency:

[M]ediational means played such a central role in a Vygotskian approach that it is appropriate to understand *agency* (i.e., who it is that carries out action) as *mediated* agency, or "individual(s)-operating-with-mediational-means." (Wertsch & Rupert, 1993, 230)

The gain of language for oneself and with others is utterly revolutionary and enduring in terms of our new capacity for agency and for making connections with and within what becomes our construction of the world:

The child who talks as he solves a practical problem connected with the use of tools and unites speech and action into one structure adds a social element to his action in this way and determines the fate of this action and the future path of development of his behavior. In this way, the behavior of the child is first carried to a completely new plane, it begins to be guided by new factors and results in the appearance of social structures in his mental life. His behavior is socialized. This is the main determining factor in all further development of his practical intellect. A situation in which people begin to act as well as things, acquires for him social significance as a whole. For him, the situation is like a problem set up by the experimenter, and the child feels that a person stands behind it the whole time regardless of whether that person participates directly or not. The child's own activity acquires its own meaning in the system of social behavior and, being directed toward a certain goal, is refracted through the prism of the social forms of his thinking.

The whole history of the child's mental development teaches us that from the first days, his adaptation to the environment is achieved by social means through the people around him. The path from the thing to the child and from the child to the thing lies through another person. The transition from the biological to the social path of development is the central link in the process of development, a cardinal turning point in the history of the child's behavior. The path through another person is the central

track of development of practical intellect, as our experiments demonstrated. We are speaking here of a paramount role. (Vygotsky, 1999, 20)

In this way, any notion of a ZPD as structuring learning within the process of mediation has to recognise that learning, whether for child or adolescent or adult, from the onset of engagement with the world through discourse, is always going to be 'refracted through the prism of the social forms of his thinking'. The social forms of thinking support us thinking about them more widely, more socially, more self-determinately than instruction in scientific principles and concepts. The personal possessive—the 'his' of thinking that could equally be 'her'—constitutes a particular subject who is doing that thinking.

When we integrate the aspects of Vygotsky's writing presented so far with aspects of Leont'ev's foundational essay, 'The Problem of Activity in Psychology' (1981), which establishes activity as the unit of analysis in human psychological development, there is further scope we can add to the mode of teaching and learning that activates sociopersonal development. We are now moving beyond the purview of the ZPD in Vygotsky's formulation, but still within the practices of mediation.

Just as Vygotsky does in 'Interaction between Learning and Development' (1978), Leont'ev (1981) critiques biological and metaphysical versions of mental development and corresponding explanations of the activity of mind:

According to it, activity is interpreted in either an idealist framework or a natural-science, materialist framework as a response of a passive subject to an external influence, in which the response is guided by innate organization and learning. (Leont'ev, 1981, 41)

What is important in this statement from a pedagogical perspective is Leont'ev's conception of activity 'as a response of a passive subject to an external influence, in which the response is guided by innate organization and learning'—this, of course, is precisely how much didactic teaching and learning is framed. In practice, and this has always been a key problem in my observation of lessons, learners spend a great deal of time in the role of passive subjects, often as spectators listening to, watching, reading, copying operations that are transmitted by a teacher. Learners are expected to guide themselves, organize themselves and learn from these episodes, supposedly in an innate process of knowledge-exchange. There is unlikely to be any recognition of or direct engagement with the social forms of thinking in the



reductionism of passive learning.

Although we can argue that activity is activity, whether passive or active, there is a different and distinct dynamism to Leont'ev's formulation of 'practical contact' that is driven by an individual motivated by personal and collective social gain:

Activity necessarily brings the human into practical contact with objects that deflect, change, and enrich this activity. In other words, it is precisely in external activity that the circle of internal mental processes is broken. It is as if the so-called objective world imperiously penetrated this circle.

Thus, activity becomes an object for psychology not as a special "part" or "element," but as a fundamental, inherent function. It is the function of placing the subject in objective reality and transforming this into a subjective form.  
(Leont'ev, 1981, 52-53)

What is important in Leont'ev's argument for our purpose with regard to advancing pedagogy is that he has been discussing the role of emotions and feelings as object-oriented expressions (objectifying) and impressions (subjectifying) of motive and desire in relation to human activity through labour:

In connection with the analysis of activity, it is sufficient to point out that its objective produces not only the objective character of images but also object-orientation of desires and emotions. (Leont'ev, 1981, 50)

Therefore, live, practical activity with mediational means gives real—as opposed to ideal—value to pedagogy. This proper agency engages actively those who are acting collectively and the means by which these actions are objectified. This agency functions to transform through mediation the activity in objective reality into subjective form. Motives, including desires, feelings and emotions are constructed subjectively with real world objectification through activity:

There can be no activity without a motive. "Unmotivated" activity is not activity devoid of a motive: it is activity with a motive that is subjectively and objectively concealed.  
(Leont'ev, 1981, 59)

Agency is not a term that Vygotsky or Leont'ev employs, although we can begin to recognize from their explanations of cultural-historical development of mind through activity that different motivations for an individual within social activity offer different powers of agency. We can also recognize that agency in terms of pedagogy simultaneously and inextricably

involves both intellectual and emotional self-construction within the same subjective world<sup>2</sup>. This has important ramifications for what we might pay attention to in terms of learning and development within and outside of formal situations of schooling.

Activity is not a monolithic permanent structure in Leont'ev's argument; activity has the capacity to shift, transform, die away and be reborn, according to changes in its motivation:

An activity can lose the motive that inspired it, whereupon it is converted into an action that may have a quite different relation to the world, i.e., implement a different activity. Conversely, an action can acquire an independent, energizing force and become an activity in its own right. (Leont'ev, 1981, 65)

The metamorphosis of activity occurs with changes in the object-motives of its agents. This too is an important point for our understanding of agency in classroom activities, since a learner or group of learners can construct a different activity around a different motive and thereby engage effectively in different objective and subjective realities than those pursued by other members of the class or the teacher. Of course, the teacher too can lose purchase on the original object-motive (lesson or task objective), lose sight of the goal of an action, or be lured off-plan into the alternative activities that other agents are developing within the space and play of the original lesson. Classroom activity abounds with struggles over mediated agency<sup>3</sup>. This is not the occasion on which to discuss the relationship between motive and volition; however, suffice it to say that learners who will not (an act of volition) fit into a passive or a required agency within a learning activity will exploit other motivations, usually interpersonal, to create contact and conversation that can easily stretch across a room of thirty people, often to the detriment of the intended collective activity. Intended objects like the production of personal and collective labour in terms of completed and coherent work can and do fragment and disintegrate rapidly when powers of agency become contested rather than collaborative.

A recent formulation of the balance of power in the ZDP engaged by children in groupwork

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<sup>2</sup> There is currently a rapidly growing literature devoted to the Vygotskian concept of *perezhivanie* (Mahn & John-Steiner, 2002) in an attempt to rebalance the emotional dimension of lived experience. I doubt, going back to Vygotsky and Leont'ev as I have done here, whether any schism between intellectual and emotional growth was intended in the first place.

<sup>3</sup> Elbers, Maier, Hoekstra & Hoogsteder (1992) respond to Wertsch & Stone (1985) with respect to the mediated agency of the child rather than that of adult and thereby reinstate the co-construction of learning through activity.

attributes learning and development to peers, teachers and the power of collective discourse. Here multiple agents work symmetrically to establish and maintain an agency that is shared and energetic with multiple opportunities for personal and collective activity and expression:

Our analysis shows that far from exhibiting an asymmetry, the zone of proximal development is an interactional achievement that allows all participants to become teachers and learners. (Roth & Radford, 2010, 303)

The advantage of the symmetric approach to the zone of proximal development that we propose here is that it allows the question of the more capable subjectivity to emerge from the interaction, appropriate especially when the question who is in the know cannot be established on the basis of the institutional positions that the individuals otherwise take. (Roth & Radford, 2010, 304)

Agency, in its liberating revolutionary form of subjectivity, does not rest in the roles of teacher and learner becoming ossified in maturational differences (a biological misconception of agency) or in institutional ranks (a material-ideological misconception), but in the potential play of agency—the habitation and exercise of agency as a person-who-teaches and a person-who-learns. This, I believe, is to reinvest teaching and learning with some of the potential agency that Vygotsky explains in relation to the play of pre-schoolers. Of course, school is the institution in which young people engage more and more closely with the demands of adult life and the world beyond school, but surely this obviates a need to realize school as a liminal space that is not quite yet adult life, just its threshold:

This strict subordination to rules is quite impossible in life, but in play it does become possible: thus, play creates a zone of proximal development of the child. In play a child always behaves beyond his average age, above his daily behavior; in play it is as though he were a head taller than himself. As in the focus of a magnifying glass, play contains all developmental tendencies in a condensed form and is itself a major source of development.

Though the play-development relationship can be compared to the instruction-development relationship, play provides a much wider background for changes in needs and consciousness. Action in the imaginative sphere, in an imaginary situation, the creation of voluntary intentions, and the formation of real-life plans and volitional motives—all appear in play and make it the highest level of preschool development. The child moves forward essentially through play activity. Only in this sense can play be considered a leading activity that determines the child's development. (Vygotsky, 1978, 102-103)

Pedagogy turns on the understanding we have of learners as subjects of learning—that is, people seeking (to recycle some of Leont'ev's words above) a direct relation with the practical

world of knowledge-making and doing which brings a feeling and sense of independence and energization. To engage with a learner symmetrically as a rational subject who thinks, speaks and acts with an internalized sense of culture warrants pedagogical practices that are radically different from filling empty heads with knowledge or instructing human animals to perform skills:

The child is seen as possessing beliefs and theories that are formed and revised on the basis of evidence; pedagogy is a matter of assisting them in evaluating their beliefs and theories reflectively, collaboratively, and finally, archivally. The product is not just the preservation of the past, but more importantly, the beliefs and theories acquired will be those held for good reasons. (Olson and Bruner, 1996, 23)

Pedagogy at work and in play with a rational subject, furthermore:

implies a conception of learners that may in time be adopted by them as the appropriate way of thinking about themselves, their learning, indeed, their ability to learn. The choice of pedagogy inevitably communicates a conception of the learner. Pedagogy is never innocent. [...] This, presumably, is the way children come to think of themselves as skilled and knowledgeable on the one hand or as untalented and ignorant on the other. (Olson & Bruner, 1996, 23-25)

Such a personally, culturally, historically and ideologically sensitive conception of pedagogy and development over many periods of time is equivalent to what social historians term the *longue durée* (Le Roy-Ladurie, 1972). We need to see the ZPD as affecting and effecting development through learning in terms of the actual structuration of an event and through a historical process lasting in the long term as a narrative of events, and:

extending research to encompass the entire life span. It seems desirable, therefore, to enlarge Vygotsky's framework by replacing "child history" with "life history." (Scribner, 1985, 40)

Since what we learn is indivisible from how we experience that learning, the meaning we make of any situated event and sequence of events happens within a longer autobiographical story of events. In the first instance we tell our story of our experience of development in and outside of school to ourselves—we are our primary audience. In some circumstances, we tell some of that story to others, and this is the story of how and what and sometimes why we think about ourselves and how we have come to do this thinking. Life, as Bruner has written, may be related as narrative:

I believe that the ways of telling and the ways of conceptualizing that go with them become so habitual that they finally become recipes for structuring experience itself, for laying down routes into memory, for not only guiding the life narrative up to the present

but directing it into the future. I have argued that a life as led is inseparable from a life as told—or more bluntly, a life is not "how it was" but how it is interpreted and reinterpreted, told and retold. (Bruner, 2004, 708)

Mariane Hedegaard's conception of the development and learning of children and young people has, over time, put aside the significance of the ZPD as a tool in order to concentrate on the reciprocal process of development:

The change in view from the child as a recipient in learning situations to the child as a participant in learning, and the change in view from learning as a cognitive process to an activity leads to new forms of teaching practice. Each child becomes involved in a reciprocal process in which his/her motives and personality plays a part in the interaction with the other persons in the classroom – the teacher and their classmates. (Hedegaard, 2004, 30)

In the third period, the late childhood period, the secondary school age and youth period, the child's motive development is directed towards engagement in other persons and society. The dominating motive is togetherness with classmates, to be socially accepted and at the same time an orientation towards self worth. The child's/youth's cognitive development can be characterized by mastering of methods for reflection about personal relations, work and societal relations. (Hedegaard, 2004, 30)

Attention to the changing pattern of reciprocal process from teacher-orientation to peer-orientation recognizes the increasingly self-conscious and interpersonal sense of socialization and otherness that emerges in the later 'turning points of development' (Vygotsky, 1998, 93), especially that turning point when a child shifts from primary to secondary school and at the onset of adolescence.

In 'The Problem of Age', Vygotsky (1998) focuses intently on the crises, turning points and negativity children and young people experience in the course of growing up and developing as social beings. Here Vygotsky works towards an application of the ZPD as part of a diagnostic method capable of uncovering the history of children's development, just as he does in 'Interaction between Learning and Development' (1978) and 'Tool and Sign in the Development of the Child' (1999), although with different emphasis each time:

At turning points of development, the child becomes relatively difficult due to the fact that the change in the pedagogical system applied to the child does not keep up with the rapid changes in his personality. Pedagogy during the critical ages is least developed in practical and theoretical respects. (Vygotsky, 1998, 93-94)

Much more geared in argument to learning and schooling, the ZPD in 'The Problem of Age'

measures the potential age the child can rise to through cooperation by introducing experimental problems:

In brief, we ask the child to solve problems that are beyond the limits of his mental age with some kind of cooperation and determine how far the potential for intellectual cooperation can be stretched for the given child and how far it goes beyond his mental age. (Vygotsky, 1998, 202)

What is striking is not the quantitative potentiality of development Vygotsky reaches, so not the product of the ZPD as an instrument, but the process of 'double stimulation' that the adult researcher engages the child in:

Using the methods of double stimulation, we can present tasks to the subject pertaining to disparate phases of development and elicit in him, in a condensed form, those processes of mastering the tasks that make it possible to trace the sequential stages of mental development during the experiment. (Vygotsky, 1999, 60)

By reading across his writings that introduce the ZPD within the different arguments concerning development and learning that Vygotsky makes, we realize that Vygotsky's diagnostic process is what reveals to us the present and the past of children and young people's development of personality and behavior. In principle, some aspects of the diagnostic work that sets up problem situations as double stimulation are also useful as teaching methods. This is what we might infer from the promise in 'The Problem of Age' to suggest teaching principles in a later chapter of a book on child development Vygotsky did not live to complete:

The practical significance of this diagnostic principle is connected with the problem of teaching. A detailed explanation of this problem will be given in one of the closing chapters. (Vygotsky, 1998, 203)

In effect, my argument is derived from Hedegaard's long-standing principle that 'teaching should create zones of proximal development through involving children in new kinds of activity' (1990, 180) through forms of teaching experiments. In particular, I am suggesting that teachers can observe aspects of young people's developmental process as they emerge by setting learners a problem of interpersonal dimensions, that is, a problem of cooperation that requires the construction and maintenance of a social situation, for instance, stipulating a way of working with each other in a classroom. There may, of course, be an intellectual, subject-based process also to be learned, which would be a more traditional application of the ZPD as a tool for the development of higher mental functions. However, in the instance I am going to

discuss, at issue is the learning of cooperation. What we need to bear witness to carefully and sensitively is the evidence of subjective problems that arises for some learners when placed in such a situation.

What will be important is not the nature of the activity as a tool or a type, in the sense that one might habitually use exploratory group work, or teacher-led feedback, or any of a range of methods for organizing teaching and learning, but the activity as an experimental and diagnostic process, in terms of its power to reveal negativity through tensions and crises for some learners whilst revealing how other learners appropriate the same situation and engage effectively. The developmental potential for pedagogy lies in the way we bear witness in an act of symmetry to what happens and assist a 'more capable subjectivity to emerge' (Roth & Radford, 2010, 304).

The quotation from Vygotsky that opens this article alludes to how his experimental method aims to reveal how the 'present is seen in the light of history'. What the ZPD offers learning is the potential for development on a third plane, moving from 'that which is and that which was' to that which might be (Vygotsky, 1978, 64). It is towards the instigation of that potential that we will now turn.

### **An example of an incident with potential significance for development**

In summary, children confronted with a problem that is slightly too complicated for them exhibit a complex variety of responses including direct attempts at attaining the goal, the use of tools, speech directed toward the person conducting the experiment or speech that simply accompanies the action, and direct, verbal appeals to the object of attention itself. (Vygotsky, 1978, 30)

The incident that follows provides qualitative data that I wish to explore through cultural-historical interpretation. I am, therefore, adopting a constructionist and hermeneutic stance towards a re-presentation of a social reality to be found in the activity of schooling (Crotty, 1998; Leont'ev, 1981, Vygotsky, 1978). To put this in less abstract language, I am going to give my understanding of what is significant in terms of human social development by making reference to evidence I will draw from a recording of an experience in a classroom in which I am involved and which I attempt to make available and actual to you through transcription. I

am giving you a partial and personal version of an event in a much larger history to which I have limited access.

The transcript presents a discussion between some pupils and two teachers at approximately 12:20, right at the end of a 60-minute English lesson for a Year 8 (12-13-year-olds) class in a secondary comprehensive school in Bristol—a city in the west of England. English as a subject covers learning about our national language and literature and teachers follow a prescribed national curriculum<sup>4</sup>. A comprehensive school is a state school that accepts by law without selection<sup>5</sup> girls and boys of all physical and psychological abilities in its geographical locality who apply to join the school at the age of 11 and leave either at 16 or continue until the age of 18. In a year group pupils are often placed in a class based on their ability in the subject with class 1 the highest ability and class 4 the lowest. Youngsters at this particular school attend five lessons between 8:40 and 15:10 with a mid-morning break of 20 minutes and a lunch break of 45 minutes. The school is typical of many in England situated in predominantly working-class communities with about 15% of learners from ethnic minority families or with one parent from an ethnic minority.

Preceding the incident reported, the class has been asked to work on a piece of writing in silence on their own for fifteen minutes without questions. There are very clear instructions in simple language displayed on the interactive whiteboard and the pupils have already completed some of the task in a previous lesson. Emphasis has been on sorting out problems for oneself. Immediately, some boys have started asking questions and have been rebuffed by the teachers and have then made a loud performance in protest. A few boys have decided that if they can't ask a question then they won't commit to the work. The boys who have maintained a disruptive performance and/or have not completed the work have been kept behind after the class. There are four of them: W, X, Y and Z. This kind of behaviour is typical of approximately 20% of boys and 5% of girls in the classes I have observed. The teachers in

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<sup>4</sup> National examinations (standardised assessments) are taken at the ages of 7, 11 (before moving to secondary school), 16 and 18. In reality, in secondary school, students are assessed continuously from entry and examined regularly, especially from the age of 14 onwards.

<sup>5</sup> In fact there is much “invisible” selection, sometimes referred to as “selection by postcode”, because different schools serve areas with very different socio-economic standards of living, so a school in a poor area is often compared through exam results with a school in an affluent area. There is also a large private school sector in the UK and children from middle-class families are often sent to a private school instead of to their local comprehensive state school. In England, Scotland and Wales, there are some single-sex state schools, whereas in Northern Ireland many state schools are single-sex.



the room are T (an experienced female, who leads the lesson) and R (me, the researcher, male, working as a support teacher). The class has two English teachers during the week (the other is referred to as Ms. B in the transcript). W, X and Y have reflected on their behaviour and explained themselves to the satisfaction of T. Z has refused to reflect and has said that he has not done anything wrong so he should not be kept behind. The transcript is written in the language used.

Year 8 English class (ability 2).

T: Well, I think the other three can go then because they've come up with something. [*Chairs scrape*].

T: Have a think then for a minute Z.

[*Laughter as boys go out*].

T: Z, this is your lunch, isn't it?

Z: Yeah, I know.

T: So, what are you going to change then for next lesson?

Z: Well, I thought I was fine.

T: OK then—So shall we have this conversation after school because this is about resolving it, isn't it?

Z: [*Upset*] I think that—ah—no, but, you're saying it as if I was like, I was like being proper naughty and all that.

T: We've said though—we've just said that it's not about being naughty—it's not about being naughty, we've just said that—[*Looking at Z's personal report sheet with behaviour targets*—well looking at your targets you've actually made quite an effort to meet most of these—but, what did we say needed to change?

Z: Well, not like, looking up...

T: Yes!

R: [*Murmurs in a positive-sounding voice*].

Z: [*Quickly*] Because I find it hard, not to get distracted, like...

T: Yes, I know you do

Z: ...and everyone is always like saying my name and that, like, so...

T: I know.

Z: ...like I always say—like, this is what my tutor always says—when I first went into the lesson I was kinda to try, like, to ignore all my mates and contain myself...

T: Yes.

Z: ...but as the lesson goes on, then I, can't, I can't sort of like—It's hard to turn around and say, "Shut up!" I find that hard, but...

R: Z that is absolutely perfect, you have absolutely said from your heart and from your intelligence what's going on, and that's right—and what you've got to do, is that—he's trying to switch you on, you know—All of these people are trying to turn you into doing something apart from your work—and you're right, you mainly do do your work, but it's the other stuff, it's the connecting with the people who are messing up the lesson that is the problem

Z: Mmm [*Positive-sounding murmur*].

R: And you're right—it's not you—you, right, you're not like the person in the middle doing it all—yep?—but what you are doing is contributing to some other stupidity...

T: And what this about, what this conversation is about is, is you channelling it in the right way. Do you know, I think it would probably help not to sit by W, for a start, so we can change that—that's one thing we can change really easily...

R: Or, maybe, not in the eyeline of Y, cos...

T: Maybe where you can't see Y

Z: Cos Ms. B [other English teacher] said, said that, um, that I was getting W in trouble, something like that, so she

T: Getting who in trouble?

Z: W.

T: Right! Let's not blame, you know, let's not say that it's your fault or anyone's fault. I think the point is that mainly 1, 2, 3 shouldn't be in a line anyway so you can see each other and that's easy, OK? OK?

R: I think W has got to sort himself out.

T: Yes, it's not about you getting him into trouble. OK—go and have some lunch—OK. well done—you did do some good work in the end, and...

R: Yeah.

T: What you said to me which was really good was that you sorted that first question out didn't you?

Z: Mmmm [*Positive-sounding murmur*].

T: OK. Good, Right. I will see you tomorrow—no, you'll see Ms. B tomorrow. Good—off you go.

R: Well done, Z—look after yourself.

T: Well done for, kind of, thinking about that carefully at the end.  
[*Z goes out. Sounds of laughter from boys waiting outside.*]

### **Discussion of the cultural-historical significance of the incident as emergent development**

The trap I do not wish the reader, or indeed myself, to fall into is a belief that something complete, revolutionary and permanent takes place in the incident re-presented above—that is far from the case. The development of new forms of behaviour is more likely to be fragmentary and by nature as much involution (turning backward) as revolution:

Critical periods alternate with stable periods and are turning points in development, once again confirming that the development of the child is a dialectical process in which a transition from one stage to another is accomplished not along an evolutionary, but along a revolutionary path. (Vygotsky, 1998, 193)

What we have just read is merely an episode in a much longer narrative. However, there are aspects of developmental process to which we can attend in this episode, not simply for the learner at the centre of my particular telling of it, but also for all the protagonists in the wider activity setting:

The dialectic is between the child's social situation and the activity setting of the institutional practices. This dialectic takes place as demands and support from the concrete setting and its participants and the child's motive orientation and is reflected

in the child's actions and experiences, eventually leading to learning and development. (Hedegaard, 2012, 127)

What is striking about the incident is the U-turn the learner makes from refusing to reflect without acknowledging any problem with behaviour to the increasingly more reflexive articulation of how he wants to be able to tell other boys to be quiet but cannot. This reflexivity acknowledges the power differential at play between the behaviour he suggests he wants, which is supported by the pastoral counsel of his form tutor, and the behaviour he actually uses, which keeps him in with his friends but gets him into trouble. Here we see the struggle between on the one hand an old form of behaviour in the acknowledgement of a subjectivity that gets him into trouble (and is seen as getting others into trouble in turn), and on the other hand the very tentative beginning of a different subjectivity that is not expressed directly but seems to be incipient, as if it is emerging over a horizon of the future and is about to be entered. We may be seeing the way an old form of behaviour and subjectivity is raised defensively as an involution of development whilst a new form of behaviour and a different personality is arriving. An individualistic less cooperative agency starts to make way for a more collectively responsible sense of agency and self-among-others:

When children develop a method of behavior for guiding themselves that had previously been used in relation to another person, when they organize their own activities according to a social form of behavior, they succeed in applying a social attitude to themselves. (Vygotsky, 1978, 27)

So far, this potential revolution has been described in subject-orientated terms. However, we need remember that change in a subject is a consequence of the dialectic any subject forms in relation to one's social situation of development and its institutional practices (Hedegaard, 2012). The dialectical process of change constitutes a complex narrative over time and space. When problems are deliberately placed in a classroom activity, we are inviting reciprocity between a person or persons and their immediate social situation. We have the capability, if we are able to grasp it, of aligning agency, development, context and activity symmetrically and co-constitutively in order to generate particular constructive qualities of experience for participants:

A context is constructed by an agent every time he gets actively involved in a setting: by determining his particular goal, examining his prior experiences, finding out which means are available, investigating which actions make sense to perform in order to achieve the goal chosen, and by relating motive, goal, object, means etc. Context, then, is the result of this process of identification of a situation as a particular activity setting.

(van Oers, 1998, 481-482)

The reality of any social situation is co-produced by its agents and their active involvement. However, active involvement is not necessarily positive involvement. In our example, the teachers are trying intentionally to build a context of activity in which the problem of working alone and overcoming difficulties without asking questions is required. In opposition, some learners are trying to rebuild that context according to their agentic power, which involves not working unassisted, asking questions and interrupting whole class activity in order to monopolize attention from the teacher. Here we see how the problem Z faces of being required to reflect on behaviour in the after-lesson conversation is part of a longer process that has been instigated earlier in the lesson activity. Preceding the diagnostic conversation that takes place afterwards, comes the initial diagnostic activity—in the spirit of the ZPD as a method of double stimulation. The teachers require a mode of engagement with a requisite personal agency. For some learners this becomes a problem, especially when the teachers refuse to accommodate regressive behaviours, which leads some learners to be kept back in order to reflect. The potential for learning and development comes out of this process of presenting a problem and requiring reflection on its effect. What we read in the transcription is a focal incident for one person, which has a locus of past activity (a history) and a range of possible explanations (narratives) depending on who is giving that explanation. The potential for a future development of agency lies in the key subjects here (learners kept behind and their teachers) learning from each other and sustaining dialogue over the production of that agency in the specific social situation it fits.

The capacity for agency is created in and by the social situation:

‘abilities’ or ‘effectivities’ and ‘affordances’ may be best thought of not as pre-given but as emergent in relation to one another. (Bloomfield, Latham & Vurdubakis, 2010, 425)

Within a social situation, wherein agents constitute the actual context through their activity, the production of agency is both personal and interpersonal. Schoolchildren (all of us actually) make our agency anew in every social situation that we experience. We do not import a virtual or robotic agency into a situation (although some situations and activities may feel like that); we actualize agency through our capacity to make an activity work for ourselves. Passive learning, with its feeling of knowledge and understanding being done to us, is a different agency to that of active learning, when we feel that we are engaged and in some

control of the process of knowing and of the actions of finding out. When we are caught in the trap of 'the passive subject to an external influence, in which the response is guided by innate organization and learning' (Leont'ev, 1981, 41), then we become aware of being treated like a tool or machine part—we become the instrument of another's agency and labour. The subjectivity of our labour is ignored. What we desire is to be our own creator of agency through activating our immediate context.

Schoolchildren and their behaviours are only the bolder ancestors of their adult selves, just as we too were once children working out how to gain and control our own agencies in a diversity of situations and institutions. When we are treated as passive objects whose actions are simply instrumental, we feel subjectively meaningless and we tend to find ways to act against the regime. Against the actions that constrain us, we develop instead our own counteractions (Poddiakov, 2005; Reed, 2008). This means that we nurture into activity other subjectivities that we own (that are us). We are all capable of turning the 'dialectic [...] between the [...] social situation and the activity setting of the institutional practices' (Hedegaard, 2012, 127) in a reverse direction through an involution. We are just as capable of contesting power as we are of claiming it. When we are faced with a situation in which our actions are proscribed in a manner we do not want then we disrupt. We can either produce actions that work towards another form of activity and change the context to effect what we want (for instance, starting a conversation about something that pleases us with someone else, so co-opting another), or we can retreat to a subjective position that is detached from the outward and expected agency (for instance, daydreaming, or "switching off", or occupying our imaginative interior). We design different motives and try to counterbalance the activity we are in by leading it away into a form that expresses that motive. In short, we behave in other ways due to our historical experience of social activities and institutions through which we have developed multiple powers of subjectivization and externalization.

When in the part of the lesson that preceded the transcribed incident, the boys (who end up in trouble) decided to counteract the collective instruction to work alone and self-solve difficulties, they were contesting the dialectic of who holds the power in determining agency:

To understand how people learn is to simultaneously understand how they are able to adapt to (and sometimes to resist) the practices of various social institutions, and to appropriate and operate with the technological and intellectual tools that are salient in these environments (Bliss & Saljö 1999, 1)

The ability to counteract has a history and an internalised narrative of process: we, a small group of boys, will perform our counter-activity and our attention-demanding agency until it rules the lesson, as we used to doing in many lessons across the school. The catalyst for change in the lesson happens at a point at which the counteractions of the group of boys would have built a leading motive that could have redirected the lesson entirely. The catalyst is a form of double stimulation whereby a new problem is raised to counteract the potential of the boy's counter-activity. What happened was that I (R in the transcript) suggested to the lead teacher (T) that our writing activity was being colonized by a small group's off-task behavior and that maybe everyone working on their own would be a better mode. At this point, I am restricting the mode of activity and therefore limiting the agency. Some boys resist by continuing to ask questions loudly and demand assistance, even though they do not need assistance—they continue to perform a counteraction and continue to occupy a familiar disruptive agency. The teacher (T) begins to remonstrate with those learners, which plays into their hands because it engages her and them in a loud alternative activity of complaint, which facilitates their avoidance of working cooperatively. I suggest that we ignore the complainants and deal with them later. This is another counteraction to counteract a counteraction. The complaining stops, but the cooperative activity is mainly refused (they attempt to go on strike). Meanwhile, the majority of the class (boys and girls) occupies itself meanwhile with the writing task and receives praise and acknowledgement at regular intervals.

The interventions I make are not fortuitous accidents but the consequence of a diagnostic research of the class's normal pattern of activity. I have noticed that the teacher tends to lead off most lessons by placing the learners in a passive agency, so, despite a perfectly good description of the lesson objective or the immediate task on the interactive whiteboard, the class is always read to and told what to do, when they could easily do the reading for themselves. Cooperative agency needs to start with active collaboration not with passive subjection. There is another problem apparent in a well-meaning tendency to give assistance before a learner has shown that they need it, which breeds dependency rather than nurturing independence. Furthermore, when a whole class activity starts, the teacher tends to spend time cajoling the same few learners into activity and thereby loses direct contact with learners who are already engaging. This tactic, which is actually dictated by the same few boys, communicates to the majority the message that cooperative learning behavior is insignificant

and that their constructive agency can be overlooked; on the other hand, inactivity and/or counter-activity are always powerful in terms of drawing the teacher's attention. So, the process by which these few boys have learnt to claim power and act out struggles over agency is part of the dialectic of development that the teacher (and other teachers presumably) in this institution have helped establish. Agency is created by the social situation of development in a dialectic that is real and actual, not ideal. What needs shifting is the balance of the dialectic in its real context of situation.

The turning point in my own development as a teacher, in a school in which learners' behaviours were far more challenging than what we are seeing in this description of a lesson, came when I began to understand (practically at first—the theoretical understanding came much later) that various learners' behaviours were designed to exploit contradictions in the immediate social situation of my classroom:

A contradiction is a historically accumulated dynamic tension between opposing forces in an activity system (Il'enkov, 1977). It constantly generates disturbances which open up opportunities and call for novel solutions that can lead to transformations in the system. (Engeström, 1999, 178)

The people and their actions within an immediate and actual context create some contradictions that emerge in the activity setting of the classroom. Tensions felt within the institution and the community create other contradictions, often to do with differences in attitude and power between people. A contradiction emerges where oppositions are foregrounded in any activity. By inquiring about the history behind contradictions and by seeking out and listening to narratives in which people express their positioning and subjective sense of reality, I learnt to understand opposition as a potential opportunity for development. In general, this means learning how to isolate the contradiction and then involve the learners who express the opposition in talking about their subjective positions, and, crucially, how they might imagine changing that subjective positioning in objective reality. Then, the new object and motive for an activity can be driven by a more collective and unified desire for change. In this way the process of seeking and reconstructing cooperation rebalances the dialectic of development.

In my early research into interaction and literacy learning I focused on mediation between the teacher and the class of learners. Four different types of mediation, which I began to think of

as different potentials for agency, were developed and described by researching the mode of teaching and learning that arose, depending on the dialogic or didactic positioning of the teacher and the learner (Reed, 1999). One contradiction between theory and practice that I sought to overcome is the tendency for the ZPD and mediation to be discussed in terms of a teacher-learner dyad, when in actuality, most teachers are rarely engaged in a dyadic relationship because there is usually only one teacher serving more than twenty learners.

In my research with teachers as a teacher, I try to understand how to use the ZPD as a diagnostic process with reconstructive significance for pedagogic practice. Exploring and experimenting with how to notice and then work through contradictions in classroom activity is typical of my research process. I seek to learn how to work as a teacher to rebalance positive and cooperative senses of agency in classroom activities. This frequently means helping learners whose sense of self and agency are going through crises and periods of negativity to make that passage and emerge with greater determination. In my experience, negativity in the classroom signals the potential for a developmental transition. Punishment and moral disapproval will only strengthen the negativity and the sense of opposition, whereas talking in order to assist, witness and confirm constructive understanding prizes positivity from which might flower a different capability of self.

For example, a month earlier than the transcribed incident I had taken a lead teaching role with the same class for the first time. I led a writing task in which I asked the learners to read the task for themselves, then rehearse in their minds their first sentence and idea. Then I asked learners to replay to me their idea quickly. Having warmed up their engagement with some modelling of initial ideas, I proceeded to set the writing task in motion towards a baseline expectation of outcome within a pre-determined time limit. Some learners started to engage and others started to build counter-activity. So I moved around the classroom quickly, looking over each learner's shoulder and praising any positive evidence of activity. I did not give assistance individually, but when I could see that a problem of understanding or a lack of imagination or strategy was emerging for a group of people then I would give a suggestion or example to the whole class. All the time I was out in the classroom making individual connections, not standing by the teacher's table. Learners who were not engaging were visited rapidly and their lack of engagement was observed and pointed out. This is a strategy of running commentary and feedback to the whole class regarding how the activity is building



and who is doing what in terms of cooperation and non-cooperation. I am quick to address both positive and negative agency. As the activity progresses this allows me to give real praise for real achievement based on written output, which is a method of publicizing social affirmation of individual activity and bolstering positive learning behaviour. This tactic gains the approval of the majority of the class, and it also motivates all learners by creating a direct connection between the collective product of individuals and a collective subjectivity. This is not competitive, nor is it based on intellectual ability. Simply put, my strategy has a leading message that all cooperation that creates a product through worthwhile labour is to be praised.

The teacher (T), who was observing this, remarked that I also tend to ignore requests or interventions that are unconstructive counteractions so denying them voice or significance. This means that I am also listening to counteractions that might offer constructive ways forward; after all, I am capable of giving the wrong lead and I need to be sensitive to my own potential for error. I tend to diagnose observed contradictions on the spot and feed that diagnosis back to the person or persons involved so long as that feedback has value in maintaining the cooperative sense of collective agency of the majority. I am also modelling a pedagogic style that I hope is recognized as effective and subsequently appropriated and experimented with, so I am engaged in teacher development. This also means that I am looking to learn from and appropriate what I see other teachers doing that is effective.

And what of the future—the lessons after the incident? As it happens, the next time I was with the class, a fortnight later, when I was co-teaching with the same teacher, Z was co-operative, worked well and presented no difficulty at all—it was a real pleasure to say to him, “Well done!”

## **Conclusion**

Contradiction in pedagogic activity is my research object in this school. What I have described is the beginning of an experimental process of practical change and the theoretical basis that I believe supports such change. These are still early days in the project. Increasingly as a small collective of teachers working with specific classes, we are attending to perceived contradictions in classroom activities and diagnosing their direct social consequences. On this

basis we are establishing conversations with individuals and small groups and requesting reflexivity in terms of outcomes and cooperation. My role is to help bring contradictions into view and determine how to promote change at a classroom level.

In any social situation of development in the state schools serving working-class communities that I try to work in, there will always be powerful limitations that dictate our degree of freedom to experiment and to innovate in terms of teaching, learning and development. These limiting forces are often deeply contradictory. In some countries, including my own, government has learnt how to control the teaching profession in the state sector through strict and overbearing policies and legislation. Contradictions also emerge out of the actions of regimes of inspection and comparison that are visited on schools serving very diverse populations. "Raising achievement" has become a rallying-cry for political parties, yet understanding of the practical difficulty of raising achievement in vastly different socioeconomic situations and is negligible and is frequently carried in a uniform fashion. The gap between rich and poor in the UK and the subsequent difference in school achievement continues to rise. These external forces of contradiction are difficult to rebalance and often all we can do is acknowledge the difficulties and concentrate on deriving the best opportunities for our learners' development.

What remains extremely unusual in research and professional development terms in the UK is the application of cultural-historical perspectives to young people's needs. The collaborative experimentation with pedagogical processes and principles over a long-term period that I am reporting is not ideologically approved by the state. I am engaged in my own form of counter-activity. To undertake and commit to research led by a motive of producing co-knowledge between learners, teachers and educational researchers is a profoundly Marxist activity that underpins the cultural-historical movement:

internal mental activities emerge from practical activity developed in human society on the basis of labor, and are formed in the course of each person's ontogenesis in each new generation—that is, the very form of the mental reflection of reality also changes. Consciousness, or the subjects' reflection of reality, of their own activity, emerges. But what is consciousness? "Consciousness is co-knowledge," as Vygotsky loved to say. (Leont'ev, 1981, 56)

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